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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/668,801

09/22/2000

Timothy J. Williams

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2047

21363

7590

10/13/2004

EXAMINER

CHRISTOPHER P. MAIORANA, P.C.

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CAO, CHUN

ST. CLAIR SHORES, MI 48080

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/668,801

Applicant(s)

WILLIAMS, TIMOTHY J.

Examiner

Chun Cao

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

1. Claims 1-25 are presented for examination. Claims 21-25 are newly added claims.
2. The text of those applicable section of Title 35, U.S. Code not included in this action can be found in the prior Office Action.
3. The rejection for claims 1-20 is respectfully maintained to the extended that is applicable to the amended claims and reproduced hereinbelow for applicant's convenience.
4. Claims 1-25 rejected under 35 U.S.C. 102(e) as being anticipated by Williams et al. (Williams), US patent no. 6,407,641.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per claim 1, Williams discloses an apparatus comprising:

a circuit configured to generate an output having a frequency [col. 2, lines 40-47] and adjust said frequency in response to a measured duration of a know time interval [started and stopped by the relevant edges of the USB traffic] associated with a

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predefined bit pattern [fig. 3; col. 4, lines 5-10] occurring in an input data stream [col. 1, lines 49-59; col. 3, lines 44-55; col. 4, lines 30-43].

As per claim 2, inherently, Williams discloses that the input data stream comprises one or more of said time intervals [col. 3, lines 44-55; col. 6, line 42-44].

As per claim 3, Williams discloses that time intervals are delimited by periodic events in said input data stream [col. 3, lines 44-55; col. 6, line 42-44].

As per claim 4, Williams discloses that periodic events comprise start-of-frame (SOF) packets [col. 4, lines 31-32] of a Universal Serial bus protocol [col. 3, line 44-col. 4, line 16; col. 6, lines 21-22].

As per claim 5, inherently, Williams teaches of adjusting the frequency within 0.25% of a host data rate [col. 5, line 64-col. 6, line 6].

As per claim 6, Williams discloses that the circuit comprises a calibration circuit configured to generate a control signal in response to said input data stream and said output; and an oscillator circuit configured to generate said output in response to said control signal [fig. 1; col. 2, lines 19-39].

As per claim 7, Williams discloses a digitally tunable oscillator circuit [102, fig. 1].

As to claims 8 and 9, inherently, Williams discloses a calibration circuit comprises a detector circuit configured to detect said predefined bit pattern and a SOF packet [edge detector, col. 4, lines 5-10, 30-43].

As per claim 10, Williams discloses the calibration circuit comprises one or more counters [col. 4, lines 29-43].

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As per claim 11, Williams discloses counters are configured to start counting in response to a first SOF packet and counting in response to a second SOF packet [+col. 4, lines 29-43].

As per claim 12, Williams discloses counters are configured to count in response to said output [col. 3, lines 51-55].

As per claim 13, Williams discloses calibration circuit comprises a look-up table [col. 4, lines 53-67].

As per claim 14, Williams discloses the look-up table containing a number of values for adjusting frequency [col. 5, lines 1-23].

As per claim 15 is written in means plus function format and contains the same limitations as claim 1, therefore, the same rejection is applied.

As to claims 16-21, Williams teaches the corresponding elements in claims 1-14 that are carried out the method of steps in claims 16-20. Williams teaches the claimed system. Therefore, Williams teaches the claimed method of steps to carry out the system.

As per claim 22, Williams discloses that predefined bit pattern comprises a packet identifier field of a SOF packet [fig. 3; col. 4, lines 5-10, 30-43].

As per claim 23, Williams discloses that circuit comprises:
a detector circuit configured to generate a detection signal in response to detecting said predefined bit pattern in said input data stream [edge detector, col. 4, lines 5-10, 30-43]; and

a counter circuit configured to generate a count signal in response to said detection signal and said output [col. 3, lines 51-55; col. 4, lines 29-43].

As per claim 24, Williams discloses that circuit further comprises:

control circuit configured to generate a tuning signal in response to said count signal and said output; and an oscillator circuit configured to generate said output in response to said tuning signal [fig. 1; col. 2, lines 19-39].

As per claim 25, inherently, Williams discloses that input data stream comprises USB 2.0 host full-speed communications SOF packets [col. 3, line 44-col. 4, line 16; col. 6, lines 21-22].

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Henson, US patent no. 6,158,014, teaches a method for adjusting a clock frequency to match an input data rate of a bitstream associated with a predefined bit pattern [col. 2, lines 18-46; col. 4, lines 8-14, 28-32, 58-67].

6. Applicant's arguments filed on 7/21/2004 have been fully considered but are not persuasive.

7. In the remarks, applicant argued in substance that **Williams** does not disclose or suggest adjusting the frequency of an output in response to a measured duration of a known time interval associated with **a predefined bit pattern** occurring in an input data stream.

8. The examiner respectfully submits that applicant's position is not persuasive.

Williams teaches of adjusting frequency in response to a measured duration of a known time interval [started and stopped by the relevant edges of the USB traffic] associated with a predefined bit pattern [fig. 3; col. 4, lines 5-10] occurring in an input data stream [col. 1, lines 49-59; col. 3, lines 44-55; col. 4, lines 30-43]. Also see rejection above.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

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Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Cao at (703) 308-6106 (571-272-3664, effective 10/14/2004). The examiner can normally be reached on Monday-Friday from 7:30 am - 4:00 pm. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor Thomas Lee can be reached at (703) 305-9717 (571-272-3667, effective 10/14/2004). The fax number for this Art Unit is following: Official (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 306-5631 (571-272-2100, effective 10/14/2004).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Chun Cao

Oct. 6, 2004